



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/006,309	12/03/2001	Akihiro Hishinuma	10873.528USD1	3355

7590

03/14/2003

Attention of Douglas P. Mueller  
MERCHANT & GOULD P.C.  
P.O. Box 2903  
Minneapolis, MN 55402-0903

EXAMINER

COLAIANNI, MICHAEL

ART UNIT	PAPER NUMBER
----------	--------------

1731

DATE MAILED: 03/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/006,309

Applicant(s)

Hishinuma et al.

Examiner

Michael Colaianne

Art Unit

1731



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Dec 3, 2001
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 4-7 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4, 5, and 7 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☒ Certified copies of the priority documents have been received in Application No. 09/584,512.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 2, 3 6) ☐ Other: \_\_\_\_\_

Art Unit: 1731

*Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 4 is rejected under 35 U.S.C. 102(b) as being anticipated by Sensi 4746347.

Sensi teaches forming a ribbon of glass on a bath of molten metal and then making the surface of the glass uneven by bringing the glass into contact with a roller arranged downstream from the metal bath in a conveyance direction of the glass ribbon (Fig. 2, ref. no. 9, 20, col. 4, lines 17-33).

3. Claim 4 is rejected under 35 U.S.C. 102(b) as being anticipated by Kamitachi JP 57-17851.

Kamitachi teaches forming a ribbon of glass on a bath of molten metal and then making the surface of the glass uneven by bringing the glass into contact with a roller arranged downstream from the metal bath in a conveyance direction of the glass ribbon (Fig. 2, ref. no. 4', 16, the roller 4' is located downstream in the bath; claim 3).

Art Unit: 1731

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sensi 4746347 in view of Callister, Material Science and Engineering: An Introduction, pg. 434.

Sensi teaches applicant's claimed invention. See the §102(b) rejection for Sensi's teachings. However, Sensi does not explicitly teach that the viscosity of the glass where the surface is made uneven has a viscosity of  $10^7$  to  $10^{13}$  poise.

However, Sensi teaches that the glass is soda lime glass and that the minimum temperature used is approximately 700°C (col. 4, lines 6-16). Callister teaches that it is known that at a glass

Art Unit: 1731

temperature of 700°C the viscosity of soda-lime glass is around  $10^7$  poise (page 434, Figure 14.4, the “Soda-Lime Glass” curve).

It would have been prima facie obvious to combine Callister’s teaching that soda-lime glass has a viscosity of  $10^7$  poise at a temperature of 700°C with Sensi’s method of making the surface of float glass uneven using a roller because Sensi teaches to use a minimum temperature of 700°C when imprinting a soda-lime glass sheet this temperature corresponds to a viscosity of  $10^7$  poise according to Callister.

7. Claims 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kamitachi JP 57-17851 in view of Edwards 3681042.

Kamitachi teaches applicant’s claimed invention. See the 102(b) rejection for Kamitachi’s teachings. Moreover, Kamitachi teaches making the side of the glass facing the metal bath uneven (Fig. 2, ref. no. 4', 16). However, Kamitachi does not teach coating the upper surface of the glass ribbon.

However, Edwards teaches that it is well known to coat the side of the glass ribbon that is not facing the molten metal bath (col. 2, lines 13-72).

It would have been prima facie obvious at the time the invention was made to combine Edwards teachings with Kamitachi’s method of making patterned glass sheets because doing so would permit the increasing the versatility of the glass sheeting by imparting to the glass desirable heat rejection or electrical conductivity properties (Edwards, col. 1, lines 30-35).

Art Unit: 1731

*Allowable Subject Matter*

8. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
9. The following is a statement of reasons for the indication of allowable subject matter: none of the prior art examined taught or fairly suggested that the roller which makes the surface of the glass uneven is a roller for lifting the glass out of the float bath.

*Conclusion*

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Colaianni whose telephone number is 703-305-5493. The examiner can normally be reached on Monday to Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin, can be reached on (703) 308-1164. The fax phone number for the organization where this application or proceeding is assigned is 703-305-7115.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.



Art Unit 1731  
March 10, 2003

**MICHAEL COLAIANNI  
PRIMARY EXAMINER**